

Remarks

Claims 1-20 are pending in the application. Claims 1, 16 and 18 have been amended. In the specification, the paragraph beginning on line 2 of page 25 has been amended to correct minor editorial problems.

Based on the present Amendment and the following Remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Objection to the Specification

The specification has been amended as suggested by the Examiner.

Objection to the Drawings

A legend has been added to Fig. 1, and the reference numerals in Fig. 2 have been changed.

Objection to the Claims

Claim 18 has been amended to correct the informality noted by the Examiner.

Rejections under 35 U.S.C. §102

Claims 1-7, 12, 13, 16, 17 and 19 stand rejected under 35 U.S.C. §102 as being anticipated by US Patent No. 4,707,652 to Lowitz.

Claim 1 recites: "selecting an acceptable, two dimensional value range for the actual values", and claim 16 recites "means for selecting an acceptable, two dimensional value range for the actual values".

The Action cites Lowitz as teaching this feature. However, Lowitz only discloses that a signal is generated if the actual values **change**, but does not disclose fixing a permissible range.

Claims 1 and 16 were amended by the present amendment to further specify that the value range was a two-dimensional value range. The two-dimensional value range is described on page 31,

beginning on line 24 and is depicted in Fig. 7. Lowitz also fails to disclose this feature.

Accordingly, claim 1 and 16 distinguish over Lowitz and are allowable over Lowitz. Claims 2-7, 12, 13, 17 and 19 depend from either claim 1 or 16 and are allowable as depending from an allowable claim.

With respect to claims 2 and 12, Lowitz is cited for fixing the permissible range with the values for the first, non-polluted material. However, Lowitz does not actually disclose a corresponding range. In addition, there is not disclosure or suggestions that the values for the non-polluted, first material cover an extensive range at all. Rather, it appears that in Lowitz the scattering curve for the radiation has a fixedly defined course for non-polluted first material and that any deviation from this course indicates the existence of a second material.

Rejections under 35 U.S.C. § 103

Claims 8, 14, 15 and 20 stand rejected under 35 U.S.C. §103 as being unpatentable over Lowitz in view of US Patent No. 6,163,158 to Moeller.

Claims 8, 14, 15 and 20 depend from either claim 1 or 16. Moeller fails to cure the deficiency of the rejection of claims 1 or 16, discussed above. As such, claims 8, 14, 15 and 20 are allowable as depending from an allowable claim.

Claims 9-11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lowitz in view of US Patent No. 5,476,108 to Dominguez et al. Claims 9, 11 and 18 depend from either claim 1 or 16. Dominguez et al. fails to cure the deficiency of the rejection of claims 1 or 16, discussed above. As such, claims 9, 11 and 18 are allowable as depending from an allowable claim.

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Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is hereby invited to telephone the undersigned at the number provided.

A Notice of Allowance with claims 1-20 is respectfully requested.

Respectfully submitted,

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